

CLAIMS

1. A method for interleaving a stream of data consisting of digital information symbols prior to transmission over a radio interface, comprising the steps of:

- performing a permutation to the stream of digital data, thus producing a permuted stream of digital data,
- producing, from the permuted stream of digital data, at least two component streams,
- reversing the order of information symbols in at least one component stream and
- mapping each component stream into a spreading code.

2. A method according to claim 1, comprising the step of reversing the order of information symbols in every second component stream prior to mapping these component streams into their corresponding spreading codes.

3. A method according to claim 1, wherein the step of performing a permutation to the stream of digital data comprises the steps of

- writing the information symbols of a certain passage of the stream of data into a permutation matrix and
- reading the information symbols from the columns of said permutation matrix in a column order which is different than the order of contiguous columns in said permutation matrix;

so that the steps of producing at least two component streams and reversing the order of information symbols in at least one component stream are performed on a discrete sequence of information symbols obtained as a result of said reading of the information symbols from the columns of said permutation matrix.

4. A radio device comprising means for interleaving a stream of data consisting of digital information symbols prior to transmission over a radio interface, comprising:

- means for performing a permutation to the stream of digital data, thus producing a permuted stream of digital data,
- means for producing, from the permuted stream of digital data, at least two component streams,
- means for reversing the order of information symbols in at least one component stream and
- means for mapping each component stream into a spreading code.

5. A radio device according to claim 4, the radio device being a mobile terminal of a 3GPP radio communication system.

6. A radio device according to claim 4, the radio device being a base station of a
5 3GPP radio communication system.

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